Modified PTO/SB/33 (10-05)

PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number Q65155	
Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number 09/902,752	Filed July 12, 2001
	First Named Inventor Cedric BAUDOIN	
	Art Unit 2665	Examiner Thien D. Tran

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal

The review is requested for the reasons(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

☑ I am an attorney or agent of record.
Registration number 28,703

/DJCushing/
Signature

David J. Cushing
Typed or printed name

(202) 293-7060
Telephone number

March 20, 2006
Date

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Cedric BAUDOIN, et al.

Docket No: Q65155

Appln. No.: 09/902,752

Group Art Unit: 2665

Confirmation No.: 9598

Examiner: Thien D. Tran

Filed: July 12, 2001

For: DEVICE FOR MANAGING RESOURCES FOR A SATELLITE TELECOMMUNICATION SYSTEM

PRE-APPEAL BRIEF REQUEST FOR REVIEW

MAIL STOP AF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the new Pre-Appeal Brief Conference Pilot Program, and further to the Examiner's Final Office Action dated September 20,2005, Applicant files this Pre-Appeal Brief Request for Review. This Request is also accompanied by the filing of a Notice of Appeal.

Applicant turns now to the rejections at issue:

Claim 1 stands rejected for anticipation by Prieto (USP 6,381,228).

The present invention is directed to the management of resources in a satellite telecommunication system, the resources typically comprising the uplink bandwidth, downlink bandwidth and the onboard switch. Claim 1 requires that the resource manager include (1) a congestion controller that assigns resources to downlinks, (2) a demand assignment device that assigns resources to uplinks, and a central entity for each satellite. The central entity is then described as including a subsystem of the congestion controller and a subsystem of the demand assignment device. In the embodiment of the invention illustrated in Fig. 4 and described at page 9 of the present application, there is a Demand Assignment Multiple Access (DAMA) subsystem comprised of a controller DAMAC and agent DAMAA, and there is a Block Admission Controller (BAC) comprised of a first subsystem BACS and a second subsystem BACD. The DAMA agent DAMAA and the first subsystem BACS of the Block Admission Controller

are located at each user station. In Fig. 4, the DAMAA is illustrated conceptually as including the first subsystem BACS.

The DAMA controller DAMAC and the second subsystem BACD of the Block Admission Controller form what is referred to in the present application as a "Central Entity." As described at lines 6-11 of page 9, the central entity can be onboard the satellite, on the ground, or dispersed amongst plural control stations. But it is a central entity in that it is shared by at least a subset of stations. In the embodiment illustrated in Fig. 4, the central entity is onboard the satellite.

As described at lines 24-29 of page 9, the subsystem BACS at each user station sends a bit rate assignment request to the central entity that represents the cumulative requirements for that station for a given downlink. This does not relate to only a single connection, nor is it the cumulative requirements of the station, which may use multiple downlinks, nor the cumulative requirements of a downlink, which may use multiple stations. It is a message relating to the cumulative requirements of all connections from a single station that use the same downlink.

The BACD in the central entity receives the bit rate assignment requests and determines a bit rate it can assign to each group of connections from each user station, and also the authorized bit rate for each switch output. This information is passed to the controller DAMAC also in the central entity, which then can determine the bit rate it can assign to groups of uplink connections.

The operation of the Prieto system can be understood from the discussion commencing at line 34 of column 7, with reference to Fig. 3 which shows the onboard processing system. A user sends a reservation query message (RQM) to the satellite, and the request is recognized by the ATM cell switch and forwarded to the media access controller (MAC) 30. As described at lines 15-54 of column 4, the RQM is a request for an uplink time slot. As described in the paragraph bridging columns 7-8, the MAC responds to the request taking into account the load on the downlink to the requested destination. As described in the paragraph beginning at line 11 of column 8, a flow-control module (FCM) monitors congestion at various switch ports and provides congestion information to the MAC 30 which can also then take this into account in deciding whether or not to grant the uplink reservation request.

While there are similarities, the arrangement and operation of the Prieto system is different from that of the present invention, and the differences are reflected in the claimed elements.

Claim 1 recites the central entity as including two subsystems, the first subsystem performing the two functions of receiving requests for necessary bit rates for a group of connections from a single user station sharing the same downlink, and determining the bit rate authorized for the group of connections. Prieto fails to satisfy this limitation in that (1) the request messages in Prieto are for uplink bandwidth, not downlink, and (2) the request messages each relate to a single connection and not to a group of connections from the station that all share the same downlink. Because the MAC in Prieto does receive the requests for all uplink connections, the MAC can estimate the downlink bandwidth load and can take this into account in granting the uplink requests as discussed in the paragraph bridging columns 7-8 of Prieto, but there is no suggestion in Prieto to modify its system so that the request messages would be for cumulative downlink bandwidth instead of individual uplink bandwidth.

Prieto discloses a congestion control function, described at lines 11-34 of column 8 and shown at 38 in Fig. 3, which is essentially similar to the congestion control acknowledged as prior art in Fig. 3 of the present application. As in Fig. 3 of the present application, the DAMA system handles requests for uplink resources and takes into account congestion. But the present invention differs in that the request messages themselves are for cumulative downlink bandwidth and are sent to the congestion controller subsystem BACD rather than to the uplink demand assignment subsystem DAMAC. The invention as defined in claim 1, and therefore in its dependent claims 2-3, is neither anticipated by nor obvious from the prior art of record.

The examiner has responded to the above by pointing out that the MAC controller of Prieto monitors the congestion and bandwidth estimation so that it can assign available bandwidth for the downlinks. The examiner further notes that each downlink can have multiple users, and directs applicants' attention to lines 60-67 of column 2 and lines 35-40 of column 3.

Lines 60-67 of column 2 refer to sharing a transmission resource. At lines 51-58 of column 1, the patentees specifically define a transmission resource as "a series of channel slots available for transmitting data on a transmission uplink path at a certain bandwidth."

The discussion at column 3 of Prieto explains that the onboard media access controller decides whether or not to grant the uplink requests by taking into account a variety of factors, with one factor being the amount of data already recently sent by this user and another factor being the congestion state of

the destination downlink port. Lines 38-40 describe the use of a bandwidth estimator to determine the available bandwidth capacity for each downlink.

It is clear that the media access controller is aware of downlink bandwidth issues. But claim 1 of the present application is not so broadly directed to simply taking into account downlink bandwidth issues. Claim 1 specifically recites that each request received by the congestion controller subsystem from a user expresses the bit rate necessary for a group of connections supported by that user which share the same satellite downlink. This is not the case in Prieto where each request is simply for uplink bandwidth. It may well be that the media access controller is privy to information from which it could of its own accord (and with the help of hindsight after reviewing the present application) formulate a request of the type recited in claim 1 here, but that does not result in anticipation of claim 1.

Claim 1 further describes the congestion controller subsystem as determining a bit rate authorized for a group of connections. Prieto allocates uplink time slots. It may well take into account downlink congestion in making its decisions, but this does not constitute determining a collective downlink bit rate for a group of uplink connections from a single user.

Claim 1 ends by reciting a subsystem of the uplink demand assignment device which allocates uplink resources at each user station as a function of a collective downlink bit rate authorized by the congestion controller. This is simply not the case in Prieto.

Prieto clearly lacks several features recited in claim 1. The examiner has relied on a perceived general similarity as support for detailed recitations which are in fact not met. Accordingly, there is no anticipation of any claim, and allowance of all claims is requested.

Respectfully submitted,

/DJCushing/

David J. Cushing
Registration No. 28,703

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: March 20, 2006